

Sherlock Leak Detector Type II

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

According to Canadian Hazardous Products Regulation – January 29, 2015

Date of issue: August 10, 2015 Supersedes: 01/20/2014 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product form : Mixture
Product name : Sherlock Leak Detector Type II
Product code : T2
Other means of identification : Type II

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Leak testing

1.3 Details of the supplier of the safety data sheet

Ratermann Manufacturing, Inc.
601 Pinnacle Place
Livermore, CA 94550

Telephone Number: 800-264-7793

1.4 Emergency telephone number

Emergency number : CHEMTREC - 1-800-424-9300 (24h)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (GHS-US, GHS-CA)

Acute Tox. 4 (Oral)	H302
Eye Irrit. 2B	H320
STOT SE 2	H371
STOT RE 2	H373
Asp. Tox. 1	H304

Full text of H-phrases: see section 16

WHMIS Classification

D1B, D2B – Eye irritant (WHMIS 1998)

2.2 Label elements

GHS-US and GHS-CA labeling

Hazard pictograms (GHS-US, GHS-CA) :



GHS07

GHS08

Signal word (GHS-US, GHS-CA) :

Danger

Hazard statements (GHS-US, GHS-CA) :

H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H320 - Causes eye irritation
H371 - May cause damage to organs (central nervous system, kidneys)
H373 - May cause damage to organs (central nervous system, kidneys, liver) through prolonged or repeated exposure

Precautionary statements (GHS-US, GHS-CA) :

P260 - Do not breathe mist, spray, vapors
P264 - Wash clothing, hands, forearms and face thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P301 + P310 - If swallowed: Immediately call a doctor or POISON CENTER
P330 - Rinse mouth
P331 - Do NOT induce vomiting
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

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P337+P313 - If eye irritation persists: Get medical advice/attention
P405 - Store locked up
P501 - Dispose of contents/container to an approved waste disposal plant

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US/CA)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product Identifier	%	Classification (GHS-US/CA)
Ethylene glycol	(CAS No) 107-21-1	55-65	Acute Tox. 4 (Oral), H302 Eye Irrit. 2B, H320 STOT SE 2, H371 STOT RE 2, H373 Asp. Tox. 1, H304

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Remove contaminated clothing and shoes. Gently wash with plenty of mild soap and water.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : May cause damage to organs (central nervous system (May cause drowsiness or dizziness), kidneys, liver).
- Symptoms/injuries after inhalation : May cause drowsiness or dizziness.
- Symptoms/injuries after skin contact : Contact during a long period may cause slight irritation. Repeated exposure may cause skin dryness or cracking.
- Symptoms/injuries after eye contact : Causes eye irritation including burning, redness, tearing, etc.
- Symptoms/injuries after ingestion : Swallowing this material may result in a serious health hazard. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness.
- Chronic symptoms : May cause drowsiness or dizziness.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Contains ethylene glycol, physician should administer ethanol or fomepizole (Antizol) to competitively inhibit metabolism of ethylene glycol to its more toxic metabolites.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not flammable.
- Explosion hazard : Not expected to be a fire/explosion hazard under normal conditions of use.
- Reactivity : Stable under normal conditions.

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6.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid allowing fire-fighting water to enter environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- 6.1.1. For non-emergency personnel
- Emergency procedures : Evacuate unnecessary personnel.
- 6.1.2. For emergency responders
- Protective equipment : Equip cleanup crew with proper protection. Avoid breathing mist, spray, vapors.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Contain and/or absorb spill with inert material (sand), then place in suitable container.
- Methods for cleaning up : Wipe up with absorbent material (for example cloth). Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing mist, spray, vapors.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in original container. Store in a well-ventilated place. Keep cool. Keep container closed when not in use.
- Incompatible products : Strong bases, strong acids.
- Incompatible materials : None known.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ethylene glycol (107-21-1)		
ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³
ACGIH	Remark (ACGIH)	URT & eye irr
OSHA	Not applicable	

ACGIH: American Conference of Governmental Industrial Hygienists, TWA: Time Weighted Average, OSHA: Occupational Safety and Health Administration, URT: Upper Respiratory Tract, irr: irritation.

8.2. Exposure controls

- Appropriate engineering controls : Not necessary with sufficient ventilation.
- Personal protective equipment : Avoid all unnecessary exposure. Wash hands, forearms and face thoroughly after handling. Gloves. Protective goggles. Apron.
- Hand protection : Wear protective gloves.
- Eye protection : Chemical goggles or safety glasses.
- Skin and body protection : Chemical resistant apron.

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Respiratory protection	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.
Other information	: Do not breathe mist, vapor, or spray. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear.
Color	: Ice blue
Odor	: characteristic
Odor threshold	: Not available
pH	: Not available
Relative evaporation rate (butyl acetate=1)	: Not available
Relative evaporation rate (water=1)	3.4
Melting point	: Not available
Freezing point	: Not available
Boiling point	: 219°F, 104 °C
Flash point	: >100°C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
Flammability (solid, gas)	: Not applicable
Vapor pressure	: 17.5 mm Hg
Relative vapor density at 20 °C	: 1.14 (air=1)
Relative density	: 1.039 (water = 1)
Density	: Not available
Solubility	: Water: 100 %
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available.
Oxidizing properties	: No data available.
Explosion limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not applicable

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

- Likely routes of exposure : Ingestion; Inhalation; Skin and eye contact.
Acute toxicity : Oral: Harmful if swallowed. (Ethylene glycol can be more toxic in humans than in animals.)

Ethylene glycol (107-21-1)	
LD50 oral rat	4000 mg/kg
LD50 dermal rabbit	9530 mg/kg
LC50 inhalation rat (mg/l)	2725 mg/m ³

- Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation : Causes eye irritation.
Respiratory or skin sensitization : Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity : Animal data has shown that ethylene glycol may cause teratogenicity and embryotoxicity but only at VERY high oral doses which are not anticipated to occur in occupational settings. Not classified (Conclusive but not sufficient for classification)
Specific target organ toxicity (single exposure) : May cause damage to organs (central nervous system, kidneys).
Specific target organ toxicity (repeated exposure) : May cause damage to organs (central nervous system, kidneys, liver) through prolonged or repeated exposure.

Ethylene glycol (107-21-1)	
NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight/day
NOAEL (subacute, oral, rat/male, 21-28 days)	200 mg/kg bodyweight/day
NOAEL (subacute, oral, rat/female, 21-28 days)	200 mg/kg bodyweight/day
NOAEL (subacute dermal dog/male, 21-28 days)	> 2000 mg/kg body weight Dog/ day

- Aspiration hazard : May be fatal if swallowed and enters airways.
Potential Adverse human health effects and symptoms : Harmful if swallowed.
Symptoms/injuries after inhalation : May cause drowsiness or dizziness.
Symptoms/injuries after skin contact : Contact during a long period may cause light irritation. Repeated exposure may cause skin dryness or cracking.
Symptoms/injuries after eye contact : Causes eye irritation which may include burning, redness, tearing, etc.
Symptoms/injuries after ingestion : Swallowing this material may result in a serious health hazard. May be fatal if swallowed and enters airways. May cause drowsiness or dizziness.
Chronic symptoms : May cause drowsiness or dizziness.

SECTION 12: Ecological information

12.1 Toxicity

- Ecology - general : Not determined.

Ethylene glycol (107-21-1)	
LC50 fish	72860 mg/L/96h (Static)
EC50 Daphnia	> 100 mg/L/48h (Static)
ErC50 Algae (growth rate)	6500 - 13000 mg/L/96h
NOEC chronic fish	15380 mg/L/7d, (Static)
NOEC chronic Daphnia	8590 mg/L/7d, (Static)

LC50: Lethal Concentration, 50%, EC50: Effective Concentration, 50%, ErC50: Effective Concentration – growth rate, 50%, NOEC: No Observed Effect Concentration

12.2 Persistence and degradability

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Persistence and degradability	Not established.

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12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.

12.4. Mobility in soil

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Ecology - soil	Not determined.

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

US Department of Transportation (DOT)

Not a dangerous good for transport

Canadian Transportation of Dangerous Goods Act/Regulations (TDG)

Not a dangerous good for transport

Transport by sea

Not determined

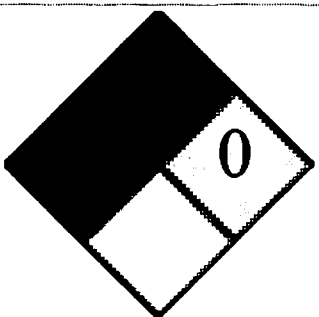
Air transport

Not determined

SECTION 15: Regulatory information

15.1. US Federal regulations

USA

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USA OSHA Hazard Communication Standard (According to Federal Register/ Vol. 77, No.58/ Mon Mar 26, 2012/Rules & Regulations)	Classified as a hazardous product. See Section 2 for details.
National Fire Protection Association® (NFPA®) Classification	

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American Coatings Association (ACA) Hazardous Materials Identification System ® (HMIS ®) III Classification	<table border="1"> <tr> <td></td> <td>2*</td> </tr> <tr> <td></td> <td>1</td> </tr> <tr> <td>Physical Hazard</td> <td>0</td> </tr> <tr> <td>Personal Protection</td> <td>C</td> </tr> </table>		2*		1	Physical Hazard	0	Personal Protection	C
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Physical Hazard	0								
Personal Protection	C								

16.2 International Regulations

CANADA

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WHMIS 2015 – GHS	Classified as a hazardous product/ See Section 2 for details.
WHMIS Classification 1998 (Controlled products Regulations)	Class D1B - Toxic material causing immediate and serious toxic effects Class D2B - Toxic material causing other toxic effects – Eye irritant
	This product has been classified in accordance with the hazard criteria of the <u>Controlled Products Regulations</u> and the MSDS contains all the information required by the <u>Controlled Products Regulations</u> .

National regulations

No additional information available

16.3 US State regulations

No additional information available

SECTION 16: Other information

Indication of changes	: New Safety Data Sheet (SDS).
Data sources	: GHS-US, GHS-CA classification parameters. References available upon request.
Other information	: None.
Date	: August 10, 2015

Full text of H-phrases::

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Asp. Tox. 1	Aspiration hazard Category 1
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 2	Specific target organ toxicity (single exposure) Category 2
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H320	Causes eye irritation
H371	May cause damage to organs
H373	May cause damage to organs through prolonged or repeated exposure

SDS USA and SDS Canada (GHS)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product